

# Oral Care for Cancer Patients in the Dental Office

by  
**Nancy Symonds, RDH, BA**

*The second of CDHA's Home Study Courses features the "real-world" experiences of veteran dental hygienist, Nancy Symonds. She shares her years of in-office experience and dental office inservices on cancer patient care. The goals of this course are: to relate why dental hygienists should do an oral cancer screening on all patients; to integrate the entire dental office team in the expert care of patients with cancer; to describe the proper protocol for cancer patients before treatment; to identify and refer patients when more comprehensive care is needed; and to describe methods to motivate the patient to achieve good oral care compliance.*

## Why Every Patient Should Receive an Oral Cancer Screening

All dental hygienists should perform oral cancer screenings regularly on all their patients. Early detection of oral cancer increases an oral cancer patient's five-year survival rate to 72% if the cancer is localized. If the cancer has spread, only 34% will have a five-year survival rate.

Why is it so shocking that a poll of patients exiting dental offices revealed that 93% had *not* had an oral pharyngeal screening? All patients need screening. It is well documented that smokeless tobacco and excess exposure to the sun (surfers, skiers) can cause oral cancer in the young. People over forty who smoke and drink greatly increase their chance of getting oral cancer. Age also increases the incidence of oral cancer and it is more prevalent in men than women.

## Elements of a complete oral cancer screening

When done routinely, this oral cancer screening examination can be performed in two minutes. The dental hygienist should do both an extraoral and intraoral examination. Early oral cancers are usually not painful, but the patient may have noticed a sore or lump or bleeding that won't go away. Ask if the patient has had difficulty swallowing, chewing, or a pain in their ear. The practitioner should palpate, using both hands, so as not to push the tumor away with one hand. Look for asymmetry, red lesions, mixed red and white patch-like lesions or, more rarely, white lesions or lesions with brown or black pigmentation. Later lesions can be hard and immovable, not diffuse, and may be ulcerated and bleeding. It is important to palpate the tongue, including the dorsal, ventral, and lateral border surfaces. The practitioner should always examine the lips, hard and soft palate, buccal mucosa, tonsillar pillars, and floor of the mouth. Local chapters of the American Cancer Society have a pamphlet on oral cancer screening that can be used as a guide.

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In California there have been an estimated 3,375 new cases of oral and pharyngeal cancer in 1999. If the dental hygienist finds something that is suspicious, ask the patient how long it has been there. If it has been present for more than two weeks, it should be biopsied. The most serious mistake made at this time is to watch and wait and not follow-up with a biopsy. Since most patients have delayed seeking a dental consultation after they first noticed a problem, the cancer may already be advanced at the time of their dental appointment. A delay in diagnosis can seriously affect the outcome of future treatments.

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## Protocolling Your Cancer Patients to Increase Their Quality of Life

A dental hygienist may encounter a long-term patient in his/her practice who states he or she has been diagnosed with a cancer and is to begin treatment in a few days. It is important for the dental staff to make themselves knowledgeable regarding the dental care of patients with cancer. The prepared office can immediately take action to help the patient go through treatment with far fewer complications.



The diagnosed cancer patient needs complete treatment, including integrated medical and dental guidance and moral support. Cancer specialists state that approximately 40% of chemotherapy patients will have oral problems, but this number reduces to about 12% if their treatment is integrated beforehand. Oral infections

have accounted for a high incidence of systemic infections and are one of the major causes of having to stop, interrupt or delay cancer treatments, and can result in longer hospital stays, greater disability and pain. In head and neck radiation, protocolled patients have 26 times less osteoradionecrosis (ORN) than patients who are not protocolled. Protocolling may also prevent pain and chronic problems after radiation treatment, such as trismus, caries, and xerostomia.

Before protocolling the patient, the practitioner should request the diagnosis, prognosis, treatment plan, and medical history from the oncologist. A thorough dental history should be accomplished if the patient is new to the office. The patient's chart should be marked on the outside to alert the staff this patient is in a special medical/dental category and has specific requirements that need to be addressed before each appointment. It helps to give a longer appointment when protocolling these patients. The goal of the appointment is to eliminate sources of irritation, trauma, and infections, and to assess the patient's oral hygiene, nutrition, motivation, compliance, and finances.

Practitioners will find they get better patient compliance when the patient brings a signifi-

cant other to appointments, one who will be with them during their cancer treatment. This will add another set of eyes and ears to remember the oral hygiene instructions and reinforce home dental care needs. Give out printed information to take home for reference and explain why it is necessary to follow the instructions during treatment, encouraging motivation for home care follow through.

### A Treatment Protocol

Protocolling includes the following:

1. Take necessary radiographs, such as a panoramic and a full mouth. Perform a full mouth examination, including periodontal charting. These steps will identify potential sources of infection and needed dental work, such as caries, broken restorations, sharp edges and overhangs, orthodontic bands removed, and partial and full dentures cleaned and adjusted. Chemotherapy patients may have to start their treatment earlier than originally scheduled, so consult with their oncologist. Urgent dental work should be done before chemotherapy begins.

For head and neck radiation patients, the mandible is more affected by radiation than the maxilla and thus more susceptible to ORN. The dentist may choose to eliminate pulpal and periapically involved teeth, advanced or symptomatic periodontally involved teeth, including teeth with furcation involvement, 4 to 6 millimeter pockets, mobility, and pericoronitis. It is important that these patients not have any dental extractions or invasive dental procedures during or after their radiation therapy. The patient should be seen 14 to 21 days before radia-

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tion treatment begins to allow complete healing of extraction sites.

2. Perform a complete prophylaxis with a fluoride treatment and home care instructions for plaque control. Remembering the patient's compromised healing profile, warn the patient not to use a water-pik device or toothpicks while going through cancer therapy to avoid cutting or abrading tissue. Give fluoride ap-

plication instructions for fluoride gel in custom-made stents for head and neck radiation patients and brush on fluoride for chemotherapy patients.

Before radiation treatment begins, fluoride stents should be fabricated and delivered, to ensure the patient understands correct usage and a proper fit exists. Fluoride stents should cover the cemento-enamel junctions and be smooth, not irritating or rubbing against oral tissues. Patients with fluoride stents should floss and brush their teeth first, apply the fluoride gel for 5 minutes, and then spit out. There should be no eating, drinking or rinsing for 30 minutes following the application. To facilitate compliance, suggest the patient do this while showering/bathing, reading, or doing some task rather than simply standing in front of their wash basin.

Chemotherapy patients should pursue the same brushing and flossing regimen, including addition of a brush-on fluoride gel.

Fluorides should be a 1.1% neutral sodium fluoride or 0.4% stannous fluoride. Use a neutral fluoride if the patient has porcelain crowns, veneers or bonding.

3. Instruct the patient about foods to avoid. Beverages that irritate or dry the mouth, such as alcohol, soda pop, carbonated or caffeinated drinks should be avoided. Patients should not eat any coarse food that can cut, abrade, or burn the mouth. Foods that are tart and spicy or sweet and/or sticky, with a potential for causing dental caries, should not be consumed. Tobacco should be avoided.

4. Foods patients should be encouraged to eat include those high in protein and calories and low in sugar. Calories maintain weight and protein rebuilds cells. If the mouth becomes too sore, the patient should try bland, mashed, creamed or pureed food with small bites. It is extremely important that patients maintain their nutrition, as weight loss can lower their immune system.

5. Vaseline or petroleum lip balms which can dry the lips should not be used. Instead, the patient can use Surgi-lube, KY Jelly, hydrous lanolin, aloe vera or vegetable based oil balms.

Mouth rinses with alcohol or peroxide should not be used. Non-alcoholic mouth rinses are commercially available or patients

can make their own by mixing 2 teaspoons baking soda with 1/2 teaspoon salt in 1 quart warm water. Omit salt if the patient is on a salt restricted diet. Rinse and then spit out. The rinse may be used as often as necessary. Compliance is facilitated by making a fresh quart each day so it is available when needed. If the patient has a problem with vomiting, they should use this rinse first before brushing their teeth to avoid etching their enamel.

6. Show the patient how to do a daily oral self examination to identify mouth sores that may arise during treatment. Stress the importance of seeing their physician or dentist immediately if they find any sores or if they have a fever or introral bleeding.

7. Head and neck radiation patients should be given instructions on stretching exercises for the jaw muscles to prevent trismus.

They should open their mouth as widely as they can 20 times, 3 times a day. For compliance, they should form a habit of doing this before each meal.

***Dental hygienists should not perform scaling/root planing at this time nor use an ultrasonic instrument, to avoid the exposure of bone and the potential of developing ORN.***

## When to Refer the Patient

Be informed. If the office decides to refer a patient to a dentist who has more experience in protocolling cancer patients, have a list of referrals to give the patient so no time is wasted before treatment. See if there is a Dental Oncology Unit in a nearby hospital or a university that has a dental school with a Dental Oncology Unit. Local American Cancer society Chapter should have a list of dentists who have experience in protocolling a cancer patient before cancer treatment. Check with local dental societies to see if they also have referral for experienced dentists. The patient's cancer physician may also have dental recommendations. Act quickly, if lacking the professional expertise, refer the patient to an office that knows how to protocol cancer patients. Be sure to follow up on this to ensure the patient is seeing a dentist before cancer treatment. This is a large responsibility and dental hygienists should become knowledgeable in this field to provide proper care for their patients.

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## Dental Treatment during Cancer Therapy

### *Chemotherapy Patients*

Patients should be seen only if they have oral problems. There should be no invasive dental procedures done until chemotherapy treatment side effects are gone. If a patient needs to be seen, check with the oncologist before any dental procedure, including prophylaxis, to determine if the patient's blood counts are satisfactory. The blood counts are usually higher just before their next chemotherapy regimen. The patient may also require antibiotic premedication if they have an indwelling central venous catheter. Dental hygienists should not per-

form scaling/root planing at this time nor use an ultrasonic instrument, to avoid the exposure of bone and the potential of developing ORN.

Evaluate the tissues and alert the dentist or physician promptly if any oral lesions are present. When the patient is immunosuppressed, oral sores can look differently and be in different locations. Some lesions must be

cultured or biopsied to differentiate between fungal, viral, or bacterial infections and to provide the correct medication. Any fever with introral bleeding should be referred to the oncologist. The patient should not wear a denture if it is irritating the tissues during periods of immunosuppression.

### *Head and Neck Radiation Patients*

Radiation patients should be monitored weekly, or as needed, to ensure they are not developing mouth sores (see chemotherapy instruction on oral lesions above). Again, check with the radiologist regarding antibiotic premedication for patients with an indwelling central venous catheter.

Make sure the patient is complying with the daily fluoride treatments, trismus exercises, nutrition and good oral hygiene. Have the patient bring their fluoride stents and toothbrushes to the office to check that they are clean and they are using them properly. There are many times patients forget to clean their stents, dentures or partials, or to change their toothbrushes, all of which can lead to oral infections.

If the mouth becomes too sore, the patient should be using an extra-soft toothbrush that is softened in warm water. If any toothbrush is too painful, the patient may be able to clean their teeth with gauze wrapped around their finger and dipped in the baking soda and salt rinse. Toothettes do not remove plaque. Evaluate if the patient is flossing to prevent trauma and bleeding to the tissues. Be prepared, as the patient or family members will have a lot of questions.

## Guidance After Treatment

### *Chemotherapy Patients*

With the oncologist's approval, routine preventive maintenance and dental care can be resumed after the patient's immune system and oral tissues have returned to normal. This assessment will be based on the patient's blood counts and risk of infection. If the patient has an indwelling central venous catheter, he/she will need antibiotic premedication. Always do an oral cancer screening, check for any mouth sores, or anything that could cause trauma. If xerostomia remains a problem, continue the brush-on fluoride treatments.

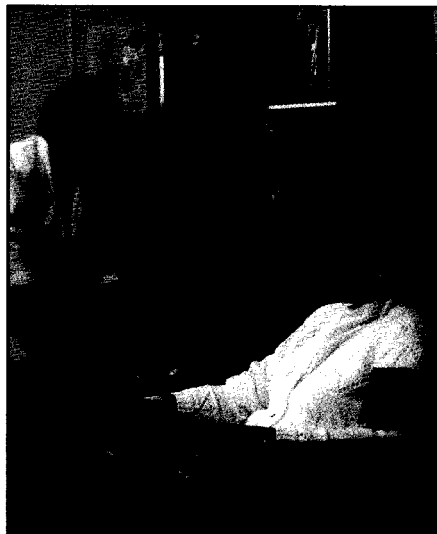
### *Head and Neck Radiation Patients*

Check with the radiologist to see if the patient needs antibiotic premedication before dental appointments, especially with an indwelling central venous catheter. For the first six months after treatment ends, the patient should be on a four to eight week recall. Then adjust the recall to the patient's needs. Patients must stay on the daily fluoride treatments for the rest of their lives to avoid caries. Office visits should always include an oral cancer screening to check for recurrences of oral cancer or any other cancer metastases. Check for mouth sores or trauma to the tissues.

The results of radiation therapy are lifelong, so to avoid osteoradionecrosis there should be no procedures that could expose the bone – including no trauma to the mouth tissues, gingiva or bone. Avoid invasive scaling procedures or use of an ultrasonic instrument. The patient's dentures or partials must fit, with no soft relines or irritation to the gingiva. No teeth should be extracted or periodontal surgery performed without consulting the radiologist or the dentist who did the pre-radiation protocolling.

By this time the practitioner should have great rapport with the cancer patient and be able to keep him/her motivated, with hope and quality of life. Their bravery will never be forgotten. ♦♦

**To earn 2 Continuing Education Units, turn to page 15, complete the Home Study Course questions, and return to CDHA by mail, as instructed.**





# Oral Care for Cancer Patients in the Dental Office

## Resource Guide

*Save this resource guide for reference and referrals*

### REFERENCES

- Epstein, Joel, D.D.S., M.S.S., (April, 1992) Canadian Journal of Oncology; 2 (2)
- Flournoy, Tina, R.D.H., B.S., Five year study of Osteoradionecrosis in Protocolled and Non-Protocolled Patients
- Gulbransen, Harold, D.D.S., (April 30, 1999) Lecture at the American Cancer Society and Kaiser Permanente 15<sup>th</sup> Annual Head and Neck Conference
- Martin, Dr. Peter J., Capt. MC USN (April 30, 1999) Lecture at the American Cancer Society and Kaiser Permanente 15<sup>th</sup> Annual Head and Neck Conference
- National Institutes of Health, Clinical Courier, Vol. 8, No. 3 (March 1990) ISSN 0264-6684, Consensus Development Conference
- Silverman, Jr., Sol, D.D.S., M.A., (March 27, 1998) Lecture at the American Cancer Society and Kaiser Permanente 14<sup>th</sup> Annual Head and Neck Conference
- Slavkin, Harold, D.D.S., (March 27, 1998) Lecture at the American Cancer Society and Kaiser Permanente 14<sup>th</sup> Annual Head and Neck Conference
- Sung, Eric C., D.D.S. (November, 1995) CDA Journal, Dental Management of Patients Undergoing Chemotherapy

### RESOURCES

A very comprehensive source kit is produced by the National Oral Health Information Clearinghouse (NOHIC): "Oral Health, Cancer Care, and You: Fitting the Pieces Together". The kit is part of an awareness campaign sponsored by the National Institute of Dental and Craniofacial Research (NIDCR) and conducted in partnership with the National Cancer Institute, the National Institute of Nursing Research, The Centers for Disease Control and Prevention, and the Friends of the NIDCR.

To order these free patient and professional materials, call toll-free 1-877-216-1019.

To order on the Internet, <http://www.aerie.com/nohicweb>. The professional material include articles on Oral Complications of Cancer Treatment; What the Oral Health Team Can Do; and an Oral Care Provider's Reference Guide for Oncology Patients. This reference guide includes Prevention and Management of Oral Complications due to Radiation Therapy, Chemotherapy, and Bone Marrow Transplantation.

There is a Continuing Education Quiz for Dentists and Dental Hygienists.

The kit also contains booklets for patients on Radiation Treatment and Your Mouth; Chemotherapy and Your Mouth, Who's on My Cancer Team and Three Good Reasons To See a Dentist.

The American Cancer Society and Kaiser Permanente Head and Neck Conference is a multidisciplinary conference for medical and dental health-care providers. Contact: American Cancer Society, Attn: Selina Travers, 8880 Rio San Diego Dr., Suite 100, San Diego, CA 92108

For more detailed instruction for cancer patients, go to <http://www.canceronline.org>

Support for People with Oral, Head and Neck Cancer (SPOHNC), Editor: Nancy Leupold, P.O.Box 53, Locust Valley, NY 11560-0053, (16) 795-5333, <http://www.spoync.org>. This newsletter includes information from the medical and dental professions, the patient's viewpoints, clinical trials, and new drug tests and research.

Facts, data and further resources available from the American Cancer Society (1999) California Cancer Facts and Figures.

*Nancy Symonds earned her BA at UCLA, then graduated from the Dental Hygiene School at Pasadena City College, and received her expanded functions at USC. She has given special attention in her dental hygiene practice to oral care for patients undergoing head and neck radiation and chemotherapy. She lectures to dental professionals and dental offices on care of cancer patients and also to cancer patients. She has written articles and pamphlets on Oral Cancer Care for cancer patients and also produced and directed videos on these same subjects and a video for the American Cancer Society on Oral Cancer Screening.*

## Home Study Course

### Oral Care for Cancer Patients in the Dental Office

2 Continuing Education Units

Please Print

Name \_\_\_\_\_ License # \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Membership ID# \_\_\_\_\_ Expiration \_\_\_\_\_

SS# \_\_\_\_\_ Home Phone Number \_\_\_\_\_

Signature \_\_\_\_\_

Forward the answer sheet below, and completed information with your check for \$20.00 payable to CDHA:

Mail to CDHA Home Study Course, 130 N. Brand Blvd., #301, Glendale, CA 91203 • 818-500-8217

A confirmation and CE certificate will be mailed within 4–6 weeks.

**ANSWER SHEET:** Circle the correct answer for questions 1–10

1. Early detection of oral cancer increases the five year survival rate to:
  - a. 34%
  - b. 52%
  - c. 72%
  - d. not at all
2. A poll of patients leaving the dental office revealed what percent of patients had received an oral pharyngeal screening:
  - a. 50%
  - b. 75%
  - c. 2%
  - d. 7%
3. It is unnecessary to do an oral cancer screening on young people as they do not get oral cancer:
  - a. true
  - b. false
4. Signs of oral cancer may be:
  - a. red lesions
  - b. white lesions
  - c. mixed red and white lesions
  - d. all of the above
5. There is no hurry to have a biopsy on a suspicious finding as most oral cancers are slow growing:
  - a. true
  - b. false
6. Approximately what percentage of chemotherapy patients will have their oral problems reduced if they are protocolled before treatment:
  - a. 28%
  - b. 33%
  - c. 50%
  - d. 75%
7. Head and neck radiation patients need to:
  - a. stay on fluoride treatment for the rest of their lives
  - b. warn their dental office they have had radiation and they should not have invasive dental procedures performed
  - c. have antibiotic premedication if they have an indwelling central venous catheter
  - d. all of the above
8. Oral infection can lead to systemic infection which is one of the major causes of stopping cancer treatment, longer hospital stays, pain, and disability:
  - a. true
  - b. false
9. The patient should immediately notify their dentist or cancer physician if:
  - a. they have mouth sores
  - b. bleeding that won't stop
  - c. a fever
  - d. all of the above
10. Hygienists must not scale/root plane or use an ultrasonic instrument on head and neck radiation on patients as this could cause:
  - a. trismus
  - b. osteoradionecrosis
  - c. bleeding
  - d. fever